

**Notice of Allowability**

Application No.

09/869,293

Examiner

Manav Seth

Applicant(s)

YOSHIDA, KOUJI

Art Unit

2624

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/04/2006.
2. ☒ The allowed claim(s) is/are 1-5, 7-11 and 35-36 (renumbered as 1-12).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>06/21/2006</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                     | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## DETAILED ACTION

### *Response to Amendment*

1. The amendment received on October 04, 2006 has been entered in full.
2. Applicant's amendments to the respective claims have been fully considered and are persuasive. Therefore, the art rejections under 35 USC 103 have been withdrawn.

### *Allowable Subject Matter*

#### Reasons of Allowance:

3. Claims 1-5, 7-11 and 35-36 (renumbered as 1-12) are allowed.

The following is an examiner's statement of reasons of allowance:

The reasons of allowance should be evident from the previous office action mailed on 08/31/2005. The instant invention is directed to a template matching method for performing template matching on a waveform of a signal (image signal), a value of the signal varying according to at least a parameter which further includes estimating an occurrence probability distribution of signal values based on the plurality of measured signal waveforms and further generates (a) a waveform template including an expected value of signal value at each value of the parameter and (b) a probability template and then performs template matching between newly measured signal waveform and the waveform template (generated in step 2) by using the piece of occurrence probability information of each of expected values. The closest prior art (Peppers et al., U.S. Patent No. 5,016,981) teaches optical pattern matching between the input image and reference patterns

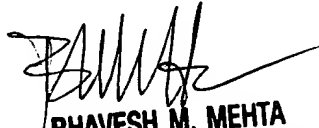
where each projection data is determined according to the probability distribution. The closest prior and the prior art of record does not teach the limitation: generating (a) a waveform template including an expected value of signal value at each value of the parameter and (b) a probability template; and; then performs template matching between newly measured signal waveform and the waveform template by using the piece of occurrence probability information of each of expected values as recited in claims 1 and 9. Therefore claims 1 and 9 are allowed. All other claims dependent on claims 1 and 9 are allowed at least by dependency on claims 1 and 9. Further, the closest prior art of record does not teach the limitation “a third step of generating, based on the occurrence probability distribution, a new template including a waveform template including expected values of the signal values at the respective values of the parameter and a probability template including a piece of occurrence probability information of the expected values, and replacing the registered template with new template” as recited in claims 5, 11, 35 and 36. Therefore, claims 5, 11, 35 and 36 are allowed. All other claims dependent on claims 5, 11, 35 and 36 are allowed at least by dependency on claims 5, 11, 35 and 36.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manav Seth whose telephone number is (571) 272-7456. The examiner can normally be reached on Monday to Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**BHAVESH M. MEHTA**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**

Manav Seth  
Art Unit 2624  
October 16, 2006